

Serial No. 09/891,300

Amendment dated February 21, 2006

Reply to Office Action dated October 18, 2005

Docket No. P-0213

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A protective device for internal resource protection in a network, comprising:

a firewall between an internal network and an external network, to selectively perform a disconnection function for an access request to the external network from the internal network;

a FTP proxy to perform an authentication function for an access request from the internal network to the external network and to record copies of data transmitted to the external network and log information related to the transmission of data by an authenticated user;

a file system to store data transmitted from the internal network to the external network according to the control of the FTP proxy; and

a database to store log information related to the transmission of data according to the control of the FTP proxy,

wherein the FTP proxy determines whether or not an ID transmitted from an internal user of the internal network is a registered ID,

wherein access control is not performed if the ID transmitted from the

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internal user is "Anonymous," such that the internal user is permitted to connect to a server located in the external network ~~the server~~ without access control,

wherein transmitting the data comprises:

checking an ID of the internal user if the received service command is a command requesting data transmission;

if the user ID is "Anonymous," interrupting the transmission of the received service command to the external network; and

if the user ID is a registered ID other than "Anonymous," transmitting the received service command to the external network and transmitting the data received from the internal user to the external network,

wherein the file system stores data according to a type of the data, and

wherein the type of data is at least one of ASCII, EBCDIC, and Image.

2. (Original) The device of claim 1, further comprising a proxy monitor configured to display the log information outputted from the FTP proxy.

3. (Previously Presented) The device of claim 1, wherein a client connects to a FTP server of the external network through the FTP proxy.

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4. (Original) The device of claim 1, wherein the log information comprises a file name and absolute path of the file data to be stored in the FTP server, and a file name and absolute path of the file data logged on the FTP proxy.

5. (Previously Presented) A method for protecting internal resources in a network, comprising:

determining whether or not an access request for accessing an external network from an internal user of an internal network is permitted by determining whether or not an ID transmitted from the internal user is a registered ID;

connecting to a server located in the external network if the access request is permitted;

receiving a service command from the internal user;

if the received service command is a command designating a type of data, storing the designated type of data in a file system; and

if the received service command is a command requesting data transmission, transmitting data from the internal user and recording the transmission and reception of services,

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wherein access control is not performed if the ID transmitted from the internal user is "Anonymous," such that the internal user is permitted to connect to the server without access control,

wherein transmitting the data comprises:

checking the ID of the internal user if the received service command is a command requesting data transmission;

if the user ID is "Anonymous," interrupting the transmission of the received service command to the external network; and

if the user ID is a registered ID other than "Anonymous," transmitting the received service command to the external network and transmitting the data received from the internal user to the external network,

wherein the file system stores data according to a type of the data, and

wherein the type of data is at least one of ASCII, EBCDIC, and Image.

6. (Previously Presented) The method of claim 5, wherein determining whether the access request is permitted further comprises:

controlling access by determining whether a host that has transmitted the access request is a registered host or not, if the ID of the internal user is a registered ID.

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7. (Previously Presented) The method of claim 6, wherein controlling the access comprises:

reading host information corresponding to the registered ID from an internal database using the registered ID;

determining whether the host information read from the database and the host that has transmitted the access request are identical or not; and

permitting access to the external network if the two hosts are identical.

8-9. (Canceled).

10. (Original) The method of claim 5, wherein recording the transmission and reception of services comprises:

receiving file data to be transmitted from the internal user to the external network;

identifying the file data according to its data type to store the file data in the file system; and

recording log information on the transmission of file data in a database.

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11. (Original) The method of claim 10, wherein the filed data can be identified by the user as a designated data type or can be identified as a default data type.

12. (Original) The method of claim 10, wherein the log information is recorded in the database when all data to be transmitted from the internal user to the external network is transmitted.

13. (Previously Presented) The method of claim 10, wherein the log information comprises a file name and absolute path of the file data to be stored in the FTP server, and a file name and absolute path of the file data logged on the FTP proxy.

14. (Previously Presented) A method for protecting internal resources in a network, comprising:

giving an internal user of a local network in which a firewall is built a proper ID and host information;

performing authentication and access control upon receiving a request for access to an external network from the internal user;

connecting to a server of the external network if an access to the external network is permitted; and

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receiving a service command from the internal user, and if the service command is a request for data transmission, transmitting file data transmitted from the internal user to the server and storing copies of the transmitted file data and log information in a database of a file system,

wherein access control is not performed if the ID transmitted from the internal user is "Anonymous," such that the internal user is permitted to connect to the server,

wherein transmitting the file data comprises:

checking the ID of the internal user if the received service command is a command requesting data transmission;

if the user ID is "Anonymous," interrupting the transmission of the received service command to the external network; and

if the user ID is a registered ID other than "Anonymous," transmitting the received service command to the external network and transmitting the data received from the internal user to the external network,

wherein the file system stores data according to a type of the data, and

wherein the type of data is at least one of ASCII, EBCDIC, and Image.

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15. (Original) The method of claim 14, wherein the authentication and access control comprises:

determining whether the ID transmitted from the internal user is a registered ID;

if the ID is registered, reading host information corresponding to the registered ID from the database;

determining whether the host information read from the database and the host who has transmitted the access request are identical; and

permitting access to the external network if the two hosts are identical.

16. (Original) The method of claim 14, wherein storing copies of the transmitted file data and log information comprises:

receiving file data to be transmitted from the user to the external network;

identifying the file data according to a data type to thus store the file data in the file system; and

recording log information regarding the transmission of file data in a database.

17. (Original) The method of claim 16, wherein the log information comprises a user ID for performing file data transmission, a source IP address of the client being used by the

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internal user, a destination IP address of the FTP server that receives the file data, a date and time of file data transmission, a file name and absolute path of the file data to be stored in the FTP server, and a file name and absolute path of the file data logged on the FTP proxy.

18-19. (Canceled)

20. (Original) The device of claim 1, further comprising a client, coupled to the firewall and to the FTP proxy, to request FTP service from the external network if the FTP proxy successfully authenticates the client.

21. (Original) The method of claim 10, further comprising outputting the log information in a form recognizable to a system operator.

22. (Original) The method of claim 16, further comprising outputting the log information in a form recognizable by a system operator.

23. (Previously Presented) A method comprising:
receiving a request for access to an external network from an internal user;

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allowing the internal user to connect to a server of the external network when an ID of the internal user is other than "Anonymous";

receiving a service command from the internal user;

after allowing the internal user to connect to the server, denying transmission of data when the ID of the internal user is "Anonymous";

transmitting data received from the internal user to the external network when the ID of the internal user is "Anonymous";

storing a copy of the transmitted data and log information in a database.

24. (Previously Presented) The method of claim 23, wherein storing the copy comprises storing the copy of the transmitted data and the log information in the database of a file system.

25. (Previously Presented) The method of claim 24, wherein the file system stores data based on a type of the data.

26. (Previously Presented) The method of claim 25, wherein the type of data comprises one of the group of ASCII, EBCDIC and Image.

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27. (Previously Presented) The method of claim 23, further comprising:

- determining whether the ID of the internal user is a registered ID;
- if the ID is registered, reading host information corresponding to the registered ID from the database;
- determining whether the host information read from the database corresponds to the internal user who transmitted the access request; and
- permitting access to the external network based on the determination.

28. (Previously Presented) The method of claim 23, wherein storing the copy of the transmitted data and log information comprises:

- receiving file data to be transmitted from the internal user to the external network;
- identifying the file data according to a data type to thus store the file data in a file system; and
- recording the log information regarding transmission of the file data in the database.

29. (Previously Presented) The method of claim 28, wherein the log information comprises a user ID to perform file data transmission, a source IP address of the internal user, a

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destination IP address of an FTP server that receives the file data, a date and time of file data transmission, a file name and path of the file data to be stored in the FTP server, and a file name and path of the file data logged on a FTP proxy.

30. (Previously Presented) The method of claim 28, further comprising outputting the log information in a form recognizable by a system operator.